

# AIRSYS

Expert In ICT Cooling



AIRSYS Provides Cooling Solution for  
Data Center    Telecom Facility    Medical Equipment

# AIRSYS Packaged Rack Data Center

The DATARAK unit from AIRSYS is a packaged industry-standard 19" rack enclosure with integrated cooling, power distribution and monitoring systems. The modular design and conformance to current industry standards allow for fast and simple deployment, ideal for both small IT spaces and larger data centers.

## Product Features

01

### Intelligent Control

- Each DATARAK unit has an integrated 7 inch touch screen with real time display of in-rack air conditioning output, power distribution and IT equipment operating status.
- Units are able to effectively operate unattended, or under local or remote management. Multiple networks can also be given access to the control platform to enable unified management across all equipment types and cooling systems.

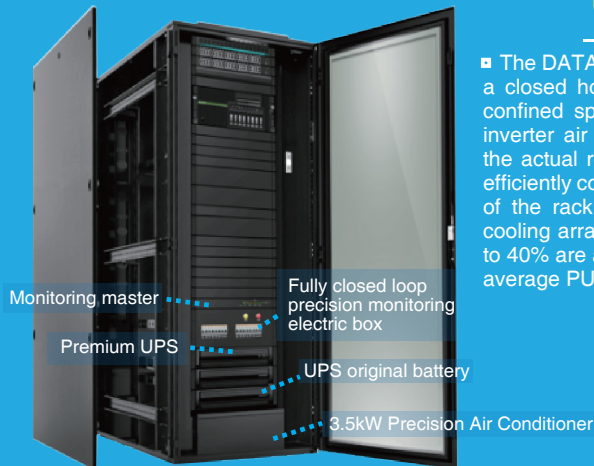
### Safety and Reliability

- Unit prefabrication, assembly and commissioning are all undertaken at the factory with strict quality control measures ensuring the safe and stable operation of each unit.
- The fully sealed design, complete with integrated fire/smoke detection and access control systems, minimize operation interference from the external environment.
- An integrated emergency ventilation system delays extreme high temperatures within the cabinet and continues the rejection of heat even under emergency operation.
- Dual levels of protection are provided through both local and remote monitoring, with the timely reporting of any abnormal conditions. Intelligent control and energy management through a holistic centralized monitoring system.

02

### High Efficiency

- The DATARAK unit essentially operates as a closed hot and cold aisle within a small confined space. This allows the integrated inverter air conditioner to accurately match the actual required cooling capacity, in turn efficiently controlling the internal temperature of the rack. When compared to traditional cooling arrangements, energy savings of up to 40% are achievable due to the low annual average PUE of 1.4 of a single rack.



### Cost Effectiveness

- No further design, modifications or cabling is required on site, with handover being achievable in as little as 3 hours. And with a footprint as small as 0.7m<sup>2</sup>, DATARAK units can provide several times the efficiency of more traditional construction types.
- The closed system design of the DATARAK units makes them highly adaptive and resilient to all operating environments, therefore reducing CAPEX through minimizing additional works. The closed system cooling can also greatly improve overall rack efficiency, significantly reducing OPEX and TCO.

03

04

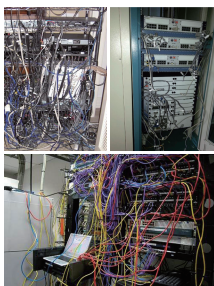
Difficult to move ,  
expand and deploy

High energy  
consumptions,  
with typically  
low efficiencies

Unorganized  
installation

Difficult to  
manage

Low safety



## Safety

Integrated systems for ease  
of moving and deploying

Industry-standard racking system

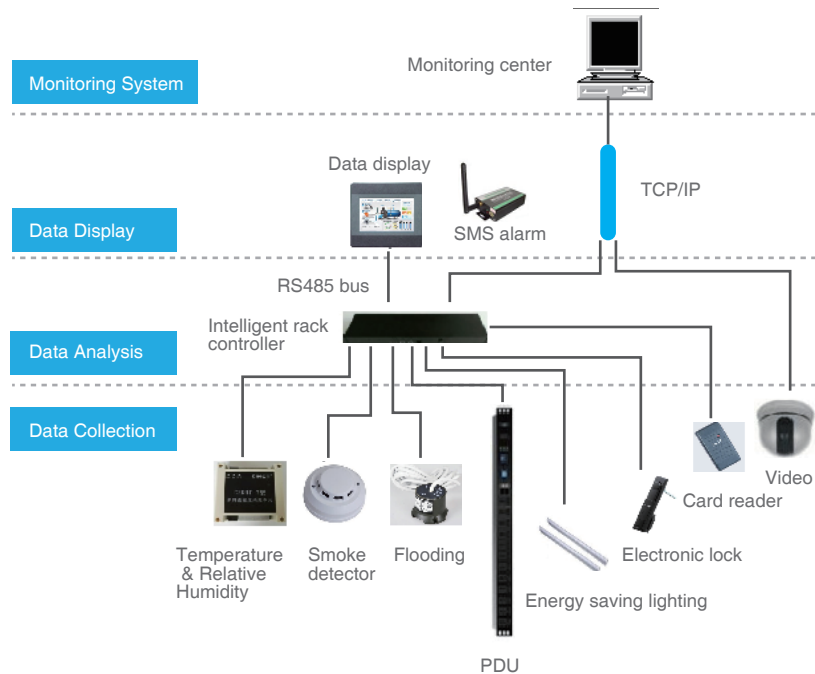
Resilient to operating environment

Unattended and remote monitoring

Intelligent controls and  
highly efficient operation



## Monitoring System Display



## Applications

The DATARAK system is ideally suited to small businesses or enterprises, such as Government branches, Educational institutes and medical branches. Due to its flexible design, it can also be utilized within cloud computing data centers.



- The integrated air conditioning system can be configured to suit each specific installation, including both packaged and split options.
- The packaged air conditioning option (i.e. no external condenser) is ideal for applications which are unable to easily install an outdoor unit for heat rejection, such as some office buildings. These units are easily installed and maintained on site, and offer a 'plug and play' solution.
- The split air conditioning option is ideal for unattended data centers, with heat from the internal rack rejected directly to the outside.

Model	DATARAK/S600	DATARAK/S800	DATARAK/P600
Rack System	Rack Dimensions	600Wx1200Dx2000H	800Wx1200Dx2000H
	Power Input	1PH 220VAC 50-60HZ	
	Application temperature	0-40°C	
	Application relative humidity	10-90%	
	Blank panel	1U/2U/4U	
	Available U	Max 27U	
	PUE	as low as 1.4	
Power Distribution System	UPS	3-6KVA 6kVA ( optional )	
	Battery Backup time	15min 5min (optional)	
	Smart Power Distribution BOX	3U , surge protection , UPS bypass, power meter	
	PDU	10A/16A/32A ( 8-24jack socket )	Smart PDU (optional)
Cooling System	Precision Air Conditioner	Split, variable speed compressorFixed speed (optional)	Packaged, variable speed compressor Fixed speed (optional)
	Cooling Capacity	3.5KW 1.5kW (optional)	
	Emergency Ventilation System	Dual row emergency air ventilation system	
	Airflow arrangement	Hot and cold aisle, up-front supply air, rear return air	
Monitor System	Display	7 inch LED touch screen	
	Monitor Items	Air conditioning, UPS, PDU, rack front and rear temperatures, access control, water leakage, smoke sensor	
	Remote Central Monitor	Remote Central Monitor, connected via RS485	
Extinguisher system	Fire alarm detection	Smoke detection standard, rack heptafluoropropane fire extinguisher device (optional)	

Altitude: ≤1000m, consider derating design when >1000m

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Product design and specification subject to change without prior notice.